

MICRO DESIGNS INTRODUCES THE

Formatted Digital Cassette

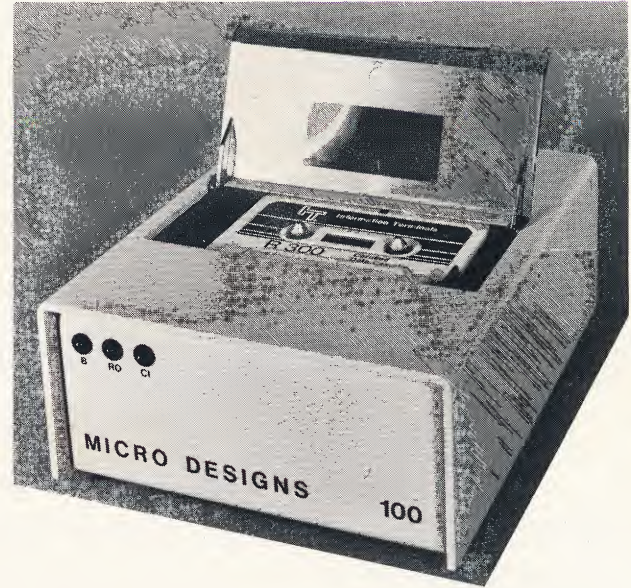
A New Mass Storage System for the Altair Bus

\$600, \$875 (doble)

The MICRO DESIGNS 100 is a

- Complete mass storage system with high level software
- Cost effective floppy disk replacement
- High speed program storage and loading device
- Formatted, record addressable digital tape system

This adds up to the first low cost, high capability data storage system for microcomputers.



The MICRO DESIGNS 100

- Stores one-half megabyte on a single cassette
- Transfers data at 1000 bytes/sec
- Seeks to individual records at 120 in/sec

The MICRO DESIGNS 100 features

- Completely automatic operation
- Hardware CRC for soft error recovery
- Fail safe hardware control of tape motion
- Status lights which inform the user of relevant tape conditions

The MICRO DESIGNS 100 software

- Includes a complete file management package
- Handles named binary and symbolic files
- Uses an IBM compatible floppy disk format
- Has low level drivers and bootstrap in ROM

Some MICRO DESIGNS 100 applications are

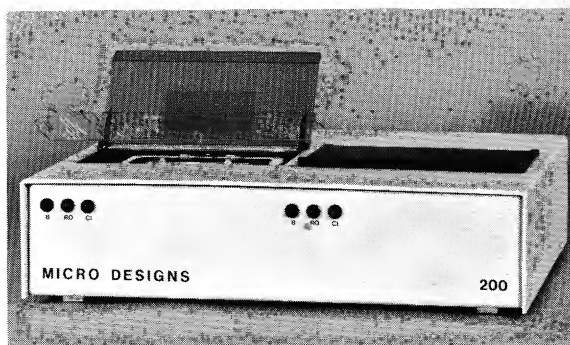
- Microcomputer development systems
- Information retrieval systems for accounting and inventory control
- Laboratory data acquisition systems

As an alternative to paper tape, the **MICRO DESIGNS 100** is

- Much faster, it loads 8K BASIC in 10 seconds
- Much more reliable and convenient
- Formatted for access and editing of individual records

As an alternative to a floppy disk, the **MICRO DESIGNS 100**

- Costs less
- Has greater storage capacity
- Is smaller and more attractive
- Uses a medium which is convenient to handle and store



MICRO DESIGNS also offers the **Model 200**, a dual drive unit with one megabyte storage capacity.

- Shared components allow double the storage capacity at much less than twice the price.
- Efficient tape copying and editing are made possible by dual drives.

The **MICRO DESIGNS Models 100 and 200** are fully assembled and rigorously tested at the factory; they come ready for immediate use. Both units are fully compatible with the Altair bus, and their interface boards plug into a single slot in the computer mainframe. A certified digital cassette containing **MICRO DESIGNS** system software is supplied with each unit.

MICRO DESIGNS INC.

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(415) 526-7794**

**NEW NUMBER
(415) 465-1861**

COS
CASSETTE OPERATING SYSTEM

COS is an adaptation of the flexible disk microcomputer control program, CP/M, and is intended for use on microcomputers which have been equipped with MICRO DESIGNS' Digital Cassette Systems.

COS requires very little new knowledge to be used efficiently. The system programs are resident on cassette and are loaded by setting up - on your computer's console - an appropriate ROM address in the cassette control board and initiating execution from that address.

Once COS is loaded, the command processor subsystem prompts the user with the symbols A>. The letter "A" designates which track is in use. The system will always "wake up" on Track "A". Each track contains 2048, 128 byte blocks (records). The Model 100 has two such tracks, "A" and "B". While the Model 200 has four tracks, "A" through "D". A file directory is maintained as the first 16 records of each track, and a track allocation map permits the creation of files of up to 16K bytes in length. (Optionally even longer.)

The user may request that the command processor carry out one of the following six intrinsic operations:

DIRECT	List the directory entries
ERASE	Delete files
TYPE	Type file contents
SAVE	Save memory as a file
A:, B:, C:, D:	Designate tracks A,B,C, or D.
RENAME	Rename a file

In addition the user may directly access the 'primitives' used by the command processor when it effects the above operations.

The 'primitives' are:

<u>Re-Boot</u>	the system from tape
<u>Read</u>	a character from the console device
<u>Write</u>	a character to the console device
<u>Reset</u>	the tape system
<u>Select</u>	tape track
<u>Open</u>	a file
<u>Close</u>	a file
<u>Search</u>	for a file
<u>Delete</u>	a file
<u>Read</u>	a file
<u>Write</u>	a file
<u>Create</u>	a file
<u>Rename</u>	a file
<u>Return</u>	the selected track number

All direct user communication is through a "console device". The console controller provided with COS is for use with a standard teletype. The locations and listings of console I/O procedures are provided and can be replaced or altered for other equipment.

It is relatively easy to adapt software which has been developed for other systems to run under COS. There are three primary reasons why this is true. First, location zero up has been retained as the user code area. Second, object code compiled or assembled to execute in a location other than zero can be stored as a file and loaded into its proper memory space. Third, existing input/output routines can be replaced with file handling calls.

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